

**Amendments to the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A particle counting method, comprising the steps of:

taking in as aerosol flow a process gas in a process apparatus disposed in a clean zone for conducting a physical or chemical reaction in a vapor phase;

charging particles existing in the aerosol flow;

applying voltage to a conductive cylinder disposed in the aerosol flow having been subjected to the charging process to thereby electrostatically attract and remove floating ions included in the aerosol;

then introducing clean air from the clean zone and generating ~~then mixing the aerosol with a~~ non-charged sheath gas flow shaped like a laminar flow in the periphery of the conductive cylinder disposed in the aerosol flow and mixing the sheath gas flow with the aerosol flow, and then applying an electrostatic field to the conductive cylinder to thereby classify the particles existing in the aerosol flow by getting ~~to thereby get the respective particles into traces~~ deflected depending on their particle sizes; and

detecting particles having specific traces deflected  
and measuring the spatial number density of particles to  
thereby calculate the particle size distribution of the  
particles floating in the process apparatus.

Claim 2 (Cancelled).

3. (Currently Amended) A particle counting method  
according to ~~claim~~ claim 1, in the step of ~~detecting~~  
classifying the charged particles, further comprising the step  
of modulating an electrostatic field intensity applied to a  
~~classifying region~~ the conductive cylinder at low frequency  
and amplifying the electric signal of detecting the charged  
particles tuned to the low frequency in a narrow band.

Claims 4-6 (Cancelled).